

FIG. 1

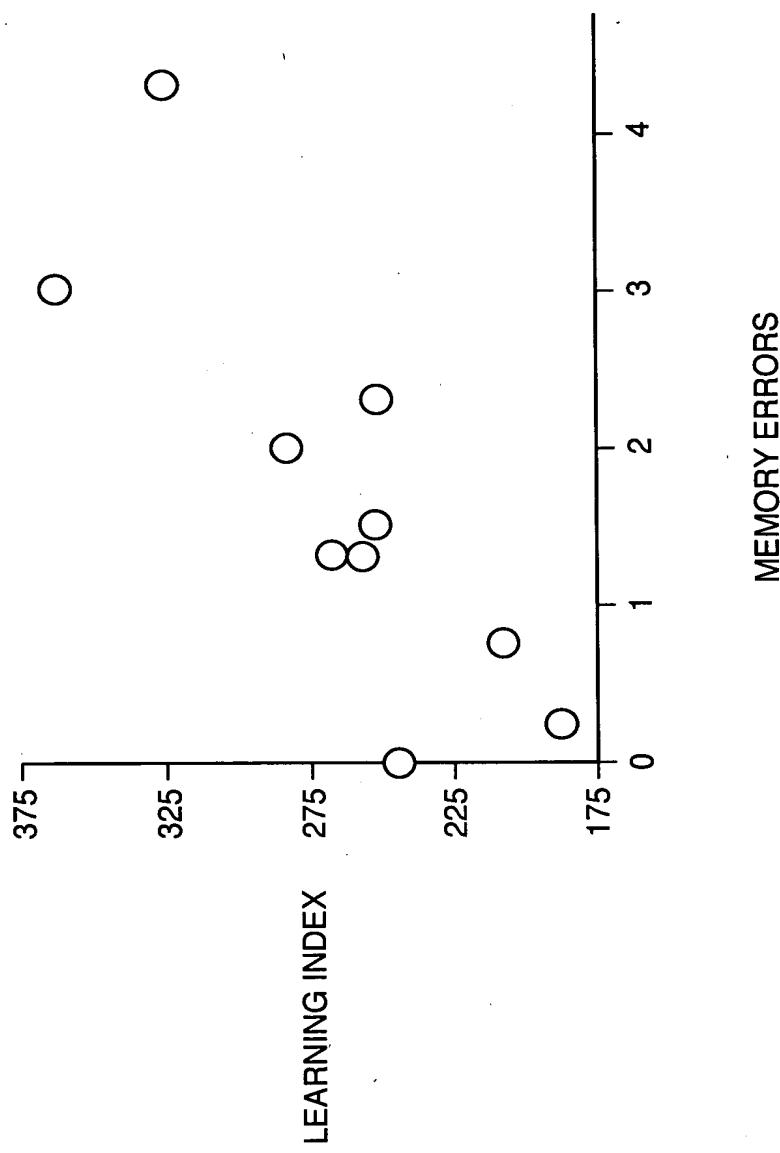


FIG. 2

DISTRIBUTION OF MAMMALIAN GLUTAMATE TRANSPORTERS AND THEIR HUMAN HOMOLOGUES*

GLUTAMATE TRANSPORTER	HUMAN HOMOLOGUE	NCBI LOCUSLINK	CELL TYPE	DISTRIBUTION
GLAST	EAAT1	SLC1A3	ASTROCYTES	HIGH EXPRESSION IN CEREBELLUM; LESS IN BRAIN AND SPINAL CORD
GLT-1	EAAT2	SLC1A2	ASTROCYTES (NEURONS)**	WIDESPREAD THROUGHOUT BRAIN AND SPINAL CORD
EAAC1	EAAT3	SLC1A1	NEURONS	HIPPOCAMPUS, CEREBELLUM, BASAL GANGLIA
EAAT4	EAAT4	SLC1A6	NEURONS	PURKINJE CELLS OF CEREBELLUM
EAAT5	EAAT5	SLC1A7	NEURONS	RETINA

*GLAST INDICATES ASTROCYTE-SPECIFIC GLUTAMATE TRANSPORTER; EAAT1, EXCITATORY AMINO ACID TRANSPORTER 1; GLT-1 GLUTAMATE TRANSPORTER 1; EAAT2, EXCITATORY AMINO ACID TRANSPORTER 2; EAAT3, EXCITATORY AMINO ACID TRANSPORTER 3; EAAT4, EXCITATORY AMINO ACID TRANSPORTER 4; EAAT5, EXCITATORY AMINO ACID TRANSPORTER 5.

**NOTE THAT ONE SPLICE VARIANT GLT-1 α IS EXPRESSED PREFERENTIALLY IN ASTROCYTES AND ANOTHER GLT-1 β IS EXPRESSED PREFERENTIALLY IN NEURONS (SCHMITT 2002 NEUROSCIENCE 109 45-61).

FIG. 3

GLUTAMATE REGULATION: MICROARRAYS

GENE	AU	Y + AI	EFFECT SIZE	p VALUE
U15098_at GLTI	337.63* ± 8.2	257.62 ± 7.9	5.87	0.0007
S59158_at GLAST	4693.87† ± 165.58	4228.57 ± 135.6	1.93	0.076
AF038571 EAAC1	732.4 ± 35.73	655.58 ± 23.92	NS	0.112
rc_A1227705_at PACAP	604.63* ± 18.91	482.32 ± 21.25	3.53	0.007
J04171_at ASPARTATE AMINOTRANSFERASE	3287.73* ± 14.86	3055.23 ± 55.9	2.58	0.025

*NO OVERLAP BETWEEN PROBE SET VALUES FOR AU AND ALL PROBE SET VALUES FOR Y AND AI.

†NO OVERLAP BETWEEN VALUES FOR AU AND VALUES FOR AI.

FIG. 4

GLUTAMATE REGULATION: IN SITU HYBRIDIZATION ASSAYS

GENE	AU	γ + AI	p VALUE
GLT	.246 ± .095	.221 ± .04	p < .03
GLAST	.263 ± .016	.228 ± .009	p < .10
EAAC1	.368 ± .034	.304 ± .028	NS

FIG. 5

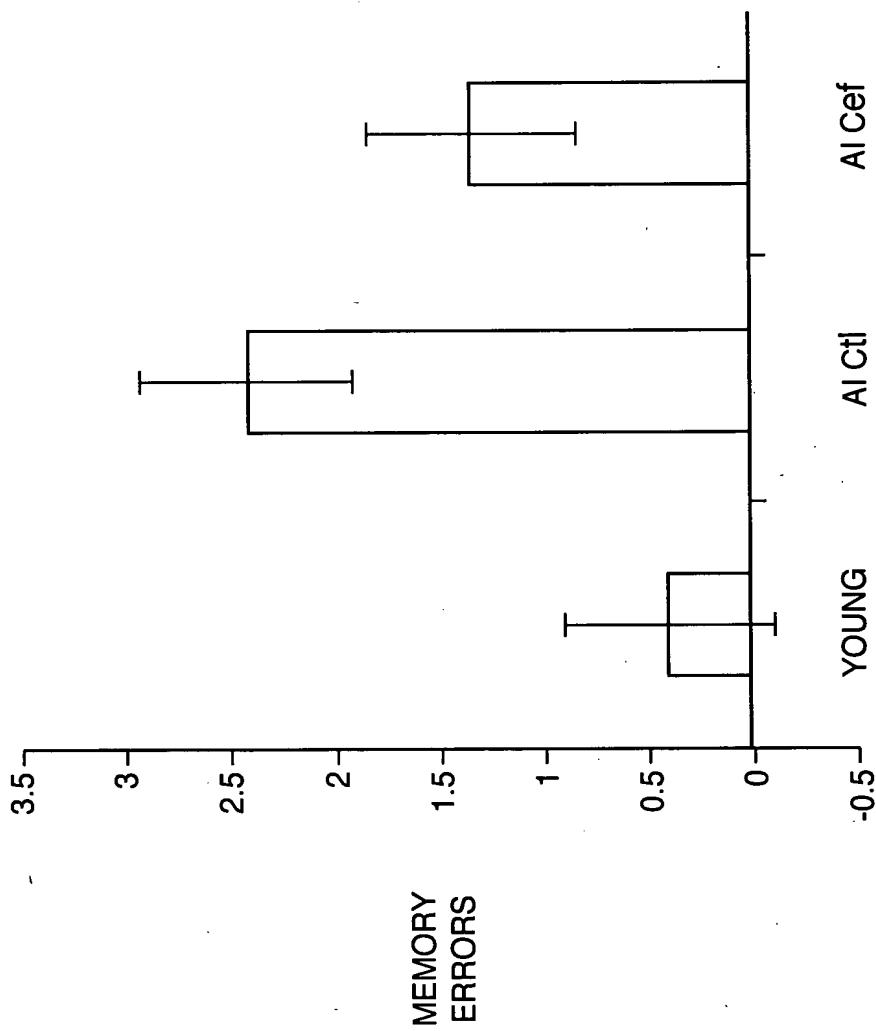


FIG. 6